

# Silverfil: Its physical characterization

## Abstract

This article focuses on the physical characterization of Silverfil (R) amalgam. Analysis of the amalgamated material semi-quantitatively showed that Silverfil (R) comprised of approximately two thirds mercury and one third silver. No other elements were detected. Examination of the amalgamated material by x ray mapping and metallographically showed no evidence of free mercury present. Silverfil (R) has strong affinity towards the mercury ion. X-ray Diffraction analysis showed that the amalgamated Silverfil (R) is similar to a mineral in nature called "Moschellandsbergite". The advantages of Silverfil (R) over conventional amalgam were highlighted.

<b>Authors:</b>	Abu Kasim, N.H.; Yahya, N. A.; Radzi, Z.; Basirun, W. J.; Ghani, A. A.
<b>Journal:</b>	3rd Kuala Lumpur International Conference on Biomedical Engineering 2006
<b>Year:</b>	2007

## Keywords :

amalgam; Silverfil(R); physical characterization; SELF-REPAIR; CULTURE-CONDITIONS; COMPOSITE RESIN; DENTAL PULP STEM CELL; FUNCTIONALLY GRADED DESIGN; MULTI LAYERED POST; FUNCTIONALLY GRADED DENTAL POST; SOFT SKILLS; CLINICAL PAIRING; DENTAL PULP STROMAL CELLS; LONG-TERM EXPANSION

**Please cite as :**

Abu Kasim, N.H., YAHYA, N. A., RADZI, Z., BASIRUN, W. J. & GHANI, A. A. 2007.

**Silverfil: Its physical characterization.** *In:* IBRAHIM, F., OSMAN, N. A. A., USMAN, J. & KADRI, N. A. (eds.) *3rd Kuala Lumpur International Conference on Biomedical Engineering 2006*. New York: Springer.

**URL :**

- [http://apps.webofknowledge.com/full\\_record.do?product=UA&search\\_mode=GeneralSearch&qid=7&SID=X2b4aFj94PA75PLaLiE&page=1&doc=4](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=7&SID=X2b4aFj94PA75PLaLiE&page=1&doc=4)
- <http://books.google.com.my/books?id=IDQ32fqu2okC&pg=PA134&lpg=PA134&dq=Its+physical+characterization+abu&source=bl&ots=-d3iK-wM5&sig=30zS-ts8Pvum5oauZuae6kbeOvc&hl=en&sa=X&ei=zb0gT5PnOML5rAe516mtCA&ved=0CCgQ6AEwAA#v=onepage&q=Its%20physical%20characterization%20abu&f=false>
- <http://www.springerlink.com/content/u0w52509q4v27351/>
- <http://resources.metapress.com/pdf-preview.axd?code=u0w52509q4v27351&size=largest>